



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,238	12/03/2003	Hironori Taniguchi	245402007900	7512
25226	7590	10/10/2006	EXAMINER	
MORRISON & FOERSTER LLP 755 PAGE MILL RD PALO ALTO, CA 94304-1018				KIM, DAVID S
		ART UNIT		PAPER NUMBER
		2613		

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SF

Office Action Summary	Application No.	Applicant(s)	
	10/728,238	TANIGUCHI, HIRONORI	
Examiner	Art Unit		
David S. Kim	2613		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 December 2003 and 22 March 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. **Claims 1 and 7-8** are rejected under 35 U.S.C. 102(a) as being anticipated by Agilent (“Agilent HSDL-3002 IrDA Data Compliant Low Power 115.2 kbit/s with Remote Control Transmission Infrared Transceiver”).

Regarding claim 1, Agilent discloses:

An infrared communication module with a function of transmitting a remote control signal, comprising:

a light emitting element for infrared communication (left transmitter in Fig. 1); and

a light emitting element for a remote control signal (right transmitter in Fig. 1), wherein

said light emitting element for infrared communication and said light-emitting element for the remote control signal are arranged in a region corresponding to a single lens (lower lens in Fig. 1).

Regarding claim 7, Agilent discloses:

The infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein said light-emitting element for infrared communication is a light-emitting element for IrDA data communication (IrDA in Fig. 1).

Regarding claim 8, Agilent discloses:

A portable device (e.g., mobile phone or PDA in Figs. 21-22) comprising the infrared communication module with the function of transmitting the remote control signal according to claim 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Agilent as applied to claim 1 above, and further in view of Takamatsu (U.S. Patent No. 5,822,099).

Regarding claims 2-6, claims 2-6 disclose various arrangements of light-emitting elements that are known in the art to provide obvious variations of directivity, as exemplified by Takamatsu. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include such various arrangements of light-emitting elements. One of ordinary skill in the art would have been motivated to do this to provide variety in directivity (Takamatsu, notice various directions in Fig. 6).

(claim 2) The infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein a central axis of remote control signal transmission light emitted from said light-emitting element for the remote control signal via said lens and a central axis of infrared communication light emitted from said light emitting element for infrared communication via said lens are different in direction (Takamatsu, underneath round lens 136, the central axis of light from each light emitting element 137 would have a different direction).

(claim 3) The infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein said light-emitting element for the remote control signal is provided on a central axis of said lens and said light-emitting element for infrared communication is provided offset from the central axis of said lens (Takamatsu, notice the central location of the center light emitting element and the offset location of a side light emitting element in Fig. 7; Agilent, placement of a remote control light-emitting element in the center or placement of an infrared communication light-emitting element in the center is an arbitrary decision of design).

(claim 4) The infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein said light-emitting element for infrared communication is provided on a central axis of said lens and said light-emitting element for the remote control signal is provided offset from the central axis of said lens (Takamatsu, notice the central location of the center light

Art Unit: 2613

emitting element and the offset location of a side light emitting element in Fig. 7; Agilent, placement of a remote control light-emitting element in the center or placement of an infrared communication light-emitting element in the center is an arbitrary decision of design).

(claim 5) The infrared communication module with the function of transmitting the remote control signal according to claim 4, wherein more than one said light emitting element for the remote control signal are arranged in a region corresponding to the single lens (Takamatsu, notice the plurality of light emitting elements in Fig. 7).

(claim 6) The infrared communication module with the function of transmitting the remote control signal according to claim 5, wherein said light-emitting elements for the remote control signal are provided symmetrically with respect to the central axis of said lens (Takamatsu, notice the symmetrical placement of light emitting elements in Fig. 7).

5. **Claims 9-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (hereinafter the “APA”) in view of Agilent and Branc et al. (U.S. Patent No. 6,081,356, hereinafter “Branc”).

Regarding claim 9-12, claims 9-12 disclose the environment of a mobile telephone, which is conventionally known, as shown by the APA (Figs. 18-19). Agilent’s teaching applies to such mobile telephones, as shown by Fig. 21 of Agilent. Additionally, claims 9-12 disclose various arrangements of the central axis of emitted light that are known in the art to provide obvious variations of directing emitted light, as exemplified by Branc. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to provide at least one arrangement of the central axis of emitted light, e.g., Fig. 7 in Branc. One of ordinary skill in the art would have been motivated to do this to provide another suitable line-of-sight connection between two communicating terminals (Branc, col. 5, l. 45-50), in addition to the connection shown in Fig. 19 of the APA.

(claim 9) A mobile telephone (APA, Figs. 18-19; Agilent, mobile phone in Fig. 21) with a display portion, comprising the infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein at least any one of a central axis of remote control signal transmission light emitted from said light-emitting element for the remote control signal via said lens and

a central axis of infrared communication light emitted from said light-emitting element for infrared communication via said lens forms a prescribed inclination angle with a display surface of said display portion (Branc, axis of emitted light in Fig. 7 forms an angle with the display portion of the communicating device in Fig. 7).

(claim 10) The mobile telephone according to claim 9, wherein said inclination angle is an angle allowing one of the central axis of the remote control signal transmission light and the central axis of the infrared communication light forming said inclination angle to be in a substantially front direction with respect to a user and in a substantially horizontal direction when the user holds the mobile telephone in a normal state of using the mobile telephone (Branc, notice the front direction of emitted light and the horizontal direction of the base in Fig. 7).

(claim 11) The mobile telephone according to claim 10, wherein said inclination angle is at least 10° and less than 90° (Branc, the angle in Fig. 7 is within this range).

(claim 12) A foldable mobile telephone comprising:
a first body having a control portion (APA, base of phones in Figs. 18-19);
a second body having a display portion coupled to said first body such that the second body can be opened and closed relative to said first body, said display portion being inclined to face a user when said second body is in an open position while the user horizontally holds the first body (APA, Fig. 18); and
the infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein one of a central axis of remote control signal transmission light emitted from said light-emitting element for the remote control signal via said lens and a central axis of infrared communication light emitted from said light-emitting element for infrared communication via said lens is directed substantially horizontally when the second body is in the open position while the user horizontally holds the first body (Branc, Fig. 7).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ota et al. is cited to show two infrared communication modules wherein the central axes of emitted light from each module forms prescribed inclination angles with the display surfaces of the display portions of

Art Unit: 2613

each module (Fig. 17B). Anzai et al. is cited to show various directions for emitted light from a communication module (e.g., Figs. 7-11).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Kim whose telephone number is 571-272-3033. The examiner can normally be reached on Mon.-Fri. 9 AM to 5 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth N. Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSK



KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER